

Amendments to the Drawings:

An attached sheet of drawings includes changes to Figure 2. This sheet, which includes Figs. 1-2, replaces the original sheet including Figs. 1-2.

Attachment: 1 Replacement Sheet of Formal Drawings (Figs. 1-2).

REMARKS/ARGUMENTS

This is a Response to the Office Action mailed April 12, 2005, in which a three (3) month Shortened Statutory Period for Response has been set, due to expire July 12, 2005. Figure 2 has been amended to include appropriate legends and an element disclosed in the specification on page 8, last paragraph - page 9, third paragraph, and claimed in claim 5. 1 sheet of replacement drawings is presented herewith for approval. Claims 1-3 were rejected and claims 4-9 were objected to. Claims 1-7 have been amended and claims 8-9 have been canceled. New claims 10-22 have been added. Since the original claims are considered to be a part of the disclosure of the present Application, Applicant has incorporated original claims 7-9 into the specification by amending the paragraph on page 7, line 17. New claim 17 is supported by the specification, as amended. No new matter has been added to the application. The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Title

In section 1 of the Office Action, the Examiner stated that the title is not descriptive and requests a new title. In response, Applicant is replacing the title "Measuring Transformer" with a new title "Measuring Transformer Utilizing a Reference Current." Applicant respectfully submits that the new title is clearly indicative of the invention to which the claims are directed.

Abstract

In section 2, the Examiner objected to the Abstract of the disclosure for including "legal phraseology." In response, Applicant has amended the Abstract. Applicant respectfully submits the Abstract, as corrected, is in proper form, and request that the objections to the Abstract be withdrawn.

Drawings

In section 3, the Examiner objected to numerical references 26 and 28 of Fig. 2 for lack of “appropriate legends.” In response, Applicant is submitting a replacement sheet that includes changes to Figure 2 as requested. Applicant respectfully submits Figure 2, as revised, is in proper form, and requests that the objections to the drawing be withdrawn.

Rejections Under 35 U.S.C. § 102

In section 6, the Examiner rejected claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by *Marcel* (U.S. Patent 5,146,156). With regard to claim 1, the Examiner stated that *Marcel* discloses “a reference setting unit (Z,R1,R2,T) for (sic) acting on the secondary winding with a predefined reference current” Applicant respectfully traverses.

Claim 1 recites, in part, “a reference setting unit for **providing on the secondary winding a predefined reference current ...**” (emphasis added). The Examiner identifies elements Z, R1, R2 and T with the reference setting unit for providing on the secondary winding a predefined reference current, as claimed. Applicant respectfully submits that the Examiner is mistaken. *Marcel* discloses, col. 2, lines 54-59, that elements Z, R1, R2 and T (Fig. 1) are elements of a current generator that provide an energizing current I to a first power supply terminal 7 (Fig. 1) of a Hall cell 5 (Fig. 1). The first power supply terminal 7 of the Hall cell 5 is an input to the Hall cell 5. In other words, the energizing current I supplied by the elements Z, R1, R2 and T to the first power supply terminal 7 of the Hall cell 5 in fact provides for operation of the Hall cell 5. For example, *Marcel* discloses, col. 2, lines 13-15, “the Hall effect device being energized via power supply terminals from a current generator supplying an adjustable energizing current.” The elements Z, R1, R2 and T comprising the current generator clearly do not provide a reference current for acting on the measuring windings 4 (i.e., the secondary windings) as illustrated in Fig. 1. In fact, as illustrated in Fig. 1, as the magnetic flux measured by the Hall cell 5 in the gap 3 changes, the output voltage of the Hall device 5 at the output terminal 10 changes, thus changing the voltage U_s at the output 15 of the operational amplifier 13. The change in U_s

thus changes U_R and the current flowing in the measuring windings 4. Thus, not only do elements Z, R1, R2 and T **not** provide a predefined reference current acting on measuring windings 4, there is no component of *Marcel's* system that provides a predefined reference current acting on the measuring windings 4.

Based at least upon the above remarks, Applicant respectfully submits that claim 1 is not anticipated by *Marcel*, and request that claim 1 be allowed. In addition, since claims 2-3 depend directly from claim 1, Applicant requests that claims 2-3 be allowed for at least the same reasons given above in conjunction with claim 1.

In section 7, the Examiner objected to claim 4 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicant submits that since claim 4 depends directly from claim 1, claim 4 is allowable for at least the reasons given above in conjunction with claim 1, and requests that claim 4 be allowed.

Objections

In section 4, the Examiner objected to claims 5-9 because of informalities. With regard to claim 5, the Examiner contended that "means ... for superposition ...," as recited, is unclear and not supported by any figures. In response, Applicant has amended claim 5 to more precisely recite what is being claimed, and amended Fig. 2 by added a summing unit 30. Applicant submits that no new matter is added. For example, the specification states that a summing unit may superimpose the output signal at 24 (Fig. 2) with the reference current (i.e., reference current generated by the reference presetting unit 26 (Fig. 2)) to obtain an absolute value of the current flowing in the conductor 16 (Fig. 2) (page 8, lines 22-27 and page 9, lines 7-9). Based upon the specification, Fig. 2 has been amended to include the summing unit 30 electrically coupled to the reference presetting unit 26 and the amplifier 14. Applicant respectfully submits that claim 5, as amended, is supported by the specification and amended Fig. 2. Furthermore, since claim 5 depends directly from claim 1, claim 5 is allowable based at least upon the above remarks made in conjunction with claim 1, and request that claim 5 be allowed.

With regard to claim 6, the Examiner stated that it is unclear how the control unit 28 (Fig. 2) is interrelated to other claimed elements of the measuring transformer. In response, Applicant has amended claim 6 to recite “[a] measuring transformer according to claim 1, further comprising a control unit electrically coupled to the magnetic flux measuring element and the reference setting unit” Fig. 2 clearly supports claim 6 as amended. Although the Examiner suggests that “it is unclear what a ‘control unit’ comprises,” the Examiner has not objected to a similarly limiting “control unit” recited in claim 4. In fact, the Examiner has stated that claim 4 is allowable if rewritten in independent form including limitations of the base claim and all intervening claims. In addition, Applicant respectfully submits that it is well within one of ordinary skill in the art to implement the control unit 28 to control or regulate the current flowing through the conductor 16 (Fig. 2). Based at least upon the above remarks, Applicant submits that claim 6, as amended, is in proper form for allowance. In addition, since claim 6 depends directly from claim 1, Applicant submits that claim 6 is allowable based at least upon the above remarks made in conjunction with claim 1, and requests that claim 6 be allowed.

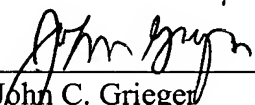
With regard to claim 7, the Examiner stated that it is unclear how the inverter is interrelated to other claimed elements of the measuring transformer, or what the inverter comprises. In response, Applicant has amended claim 7 to recite “[a] measuring transformer according to claim 6, wherein the current flowing through the conductor being controlled or regulated by the control unit is an inverter output current.” Claim 7 as amended does not recite “an inverter.” Amended claim 7 is limited by an inverter output current flowing through the conductor, and such a limitation is supported by the specification (page 7, lines 17-20).

Applicant is canceling claims 8-9.

Conclusion

In light of the above amendments and remarks, Applicant respectfully submits that the Application is in condition for allowance. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
SEED Intellectual Property Law Group PLLC



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DVC(JCG):lcs

Enclosures:

Postcard
1 Sheet of Replacement Drawings (Figures 1-2)

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